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(54) Title: **IMPROVED METALWORKING AND MACHINING FLUIDS**

(57) **Abstract:** Improved boron-based metal working and machining fluids. Boric acid and boron-based additives that, when mixed with certain carrier fluids, such as water, cellulose and/or cellulose derivatives, polyhydric alcohol, polyalkylene glycol, polyvinyl alcohol, starch, dextrin, in solid and/or solvated forms result in improved metalworking and machining of metallic work pieces. Fluids manufactured with boric acid or boron-based additives effectively reduce friction, prevent galling and severe wear problems on cutting and forming tools.

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